

ABSTRACT

5 An exciter system (10) is provided for use in facilitating
electromagnetic communication within an enclosed space (12). The system
(10) includes an exciter (26) which may be in the form of a three
dimensional hemispherical exciter (28) or a two dimensional planar sector
exciter (30) depending on the size of the associated structure and the power
requirements of operation. The exciter system (10) operates in conjunction
10 with a hub/controller network (44). The exciter system (10) is adapted to
induce a quasi-static evanescent field (20) within the space and to thereby
enable communications using the evanescent field (20) at frequencies within
an operational frequency range determined by the characteristics of the
space. The exciter (26) is mounted in opposition to a portion of a
15 conductive framework (18) within the enclosed space, and is separated
therefrom. In operation, a coaxial connector (48) connects the exciter (26)
to the hub/controller network (44) with the center conductor (50) connecting
at a feed point (66) to the exciter (26) while the shield conductor (52) is
connected to the opposing conductive framework (18). In some
20 embodiments a post (40) acts as a curtain to enhance performance at lower
frequencies

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